

Amendment to the Claims:

The listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

Claim 1 (original): A method of obtaining connection to a packet data network comprising:

inputting a user request to a first network which requests that the user be authorized for connection to the packet data network through a second network;

transmitting from the first network to the second network the user request and an authorization of payment to the second network by the first network for the use by the user of the packet data network;

transmitting from the second network to the first network authentication information granting the user authentication to obtain connection through the second network to the packet data network; and

transmitting the authentication information from the first network to the user which informs the user that authentication to obtain connection to the packet data network has been obtained.

Claim 2 (original): A method in accordance with claim 1 wherein:

the user request includes a quantification of connectivity which the user requests to the packet data network.

Claim 3 (original): A method in accordance with claim 2 wherein:

the quantification comprises at least one service unit with each service unit being encoded with a random number.

Claim 4 (original): A method in accordance with claim 3 wherein:

each service unit is encoded with a different random number.

Claim 5 (original): A method in accordance with claim 1 wherein:

the authentication information comprises a shared key which may be used to create secure communications between the user and the packet data network.

Claim 6 (original): A method in accordance with claim 5 wherein:

authentication information is a subscriber identification module SIM comprising a number n of service units with each service unit comprising a different random access number uniquely identifying each service unit, a signed response SRES and the shared key K_c .

Claim 7 (original): A method in accordance with claim 2 wherein:

the authentication information comprises a shared key which may be used to create secure communications between the user and the packet data network.

Claim 8 (original): A method in accordance with claim 7 wherein:

authentication information is a subscriber identification module SIM comprising a number n of service units with each service unit comprising a different random access number uniquely identifying each service unit, a signed response SRES and the shared key K_c .

Claim 9 (original): A method in accordance with claim 3 wherein:

the authentication information comprises a shared key which may be used to create secure communications between the user and the packet data network.

Claim 10 (original): A method in accordance with claim 5 wherein:

the second network computes a subscriber identification module SIM comprising the number of service units with each service unit comprising a different random access number uniquely identifying each service unit, a signed response and the shared key K_c .

Claim 11 (original): A method in accordance with claim 4 wherein:

the authentication information comprises a shared key which may be used to create secure communications between the user and the packet data network.

Claim 12 (original): A method in accordance with claim 11 wherein:

authentication information is a subscriber identification module SIM comprising the number of service units with each service comprising a different random access number uniquely identify each service unit, a signed response and the shared key.

Claim 13 (original): A method in accordance with claim 1 wherein:

the inputting of the user request to the first network, the transmitting of the user request and an authorization of payment to the second network, and the transmitting of the authentication information from the second network to the first network and to the user are by secure communications.

Claim 14 (original): A method in accordance with claim 2 wherein:

the inputting of the user request to the first network, the transmitting of the user request and an authorization of payment to the second network, and the transmitting of the authentication information from the second network to the first network and to the user are by secure communications.

Claim 15 (original): A method in accordance with claim 3 wherein:

the inputting of the user request to the first network, the transmitting of the user request and an authorization of payment to the second network, and the transmitting of the authentication information from the second network to the first network and to the user are by secure communications.

Claim 16 (original): A method in accordance with claim 4 wherein:

the inputting of the user request to the first network, the transmitting of the user request and an authorization of payment to the second network, and the transmitting of the authentication information from the second network to the first network and to the user are by secure communications.

Claim 17 (original): A method in accordance with claim 5 wherein:


the inputting of the user request to the first network, the transmitting of the user request and an authorization of payment to the second network, and the transmitting of the authentication information from the second network to the first network and to the user are by secure communications.

Claim 18 (original): A method in accordance with claim 3 wherein:

after the user is informed that authentication to obtain connection to the packet data network has been obtained, the user transmits to the second network at least one request for consumption of at least one service unit comprising a random number RAND and a signed response SRES;

the second network compares the random number RAND and signed response SRES of each request for consumption of at least one service unit received from the user with stored random numbers RAND and signed responses SRES to determine if a match exists; and

if a match exists, the second network permits data packets to pass through the second network between the user and the packet network.




Claim 19 (original): A method in accordance with claim 18 wherein:
the second network debits from a stored value of service units which have been granted to the user a number of consumed service units which are identified in each request for consumption of at least one service unit until the number of consumed service units equals the number of granted service units.

Claim 20 (original): A method in accordance with claim 19 wherein:
each unused service unit is stored in the second network in a hash table and each used service unit is stored in the second network in a hash table.

Claim 21 (original): A system comprising:
a user;
a first network which is connectable to the user;
a second network which is connectable to the first network and to the user; and
a packet data network which is connectable to the second network;
and wherein
the first network, in response to a user request to the first network that the user be authorized for connection to the packet data network through the second network, transmits to the second network the user request and an authorization of payment by the first network for the use by the user of the packet data network, the second network transmits to the first network authentication information granting the user authentication to obtain connection through the second network to the packet

data network, and the first network transmits to the user authentication information which informs the user that authentication to obtain connection to the packet data network has been obtained.



Claim 22 (previously presented): A method of obtaining connection to a packet data network comprising:

inputting a user request to a first network which requests that the user be authorized for connection to the packet data network through a second network;

transmitting from the first network to the second network the user request and an authorization of payment to the second network by the first network for the use by the user of the packet data network;

transmitting from the second network to the first network authentication information granting the user authentication to obtain connection through the second network to the packet data network;

transmitting the authentication information from the first network to the user which informs the user that authentication to obtain connection to the packet data network has been obtained; and

after the user is informed that authentication to obtain connection to the packet data network has been obtained, the user transmits to the second network at least one request for consumption of at least one service unit and the second network debits from a stored value of service units which are granted to the user a consumed number of service units.

Claim 23 (previously presented): A method in accordance with claim 22 wherein:

the number of consumed service units are identified in each request for consumption of at least one service unit until the number of consumed service units equals a number of granted units.

Claim 24 (previously presented): A system comprising:

a user;

a first network which is connectable to the user;


a second network which is connectable to the first network and to the user; and

a packet data network which is connectable to the second network; and wherein

the first network, in response to a user request to the first network that the user be authorized for connection to the packet data network through the second network, transmits to the second network the user request and an authorization of payment by the first network for the use by the user of the packet data network, the second network transmits to the first network authentication information granting the user authentication to obtain connection through the second network to the packet data network, and the first network transmits to the user authentication information which informs the user that authentication to obtain connection to the packet data network has been obtained; and

after the user is informed that authentication to obtain connection to

the packet data network has been obtained, the user transmits to the second network at least one request for consumption of at least one service unit and the second network debits from a stored value of service units which are granted to the user a consumed number of service units.



Claim 25 (previously presented): A system in accordance with claim 24 wherein:

the number of consumed service units are identified in each request for consumption of at least one service unit until the number of consumed service units equals a number of granted units.

Claim 26 (Previously Presented): A method of obtaining connection to a packet data network comprising:

inputting a user request to a first network which requests that the user be authorized for connection to the packet data network through a second network;

transmitting from the first network to the second network the user request and an authorization of payment to the second network by the first network for the use by the user of the packet data network;


transmitting from the second network to the first network authentication information granting the user authentication to obtain connection through the second network to the packet data network;

transmitting the authentication information from the first network to the user which informs the user that authentication to obtain connection to the packet data network has been obtained;

the user roams to the second network;

the user requests connection to the packet data network while roaming in the second network; and

the second network grants connection to the packet data network while roaming in the second network based upon the authorization of payment received by the second network.



Claim 27 (Currently Amended): A method in accordance with claim 26, wherein:

the authorization of payment quantifies an amount of payment that the first network will pay to the second network for connection of the user to the packet data network ~~which~~ when the user roams in the second network; and

payment for the connection of the user while roaming in the second network for connection to the packet data network is charged against the authorization.

Claim 28 (Previously Presented): A method in accordance with claim 26 wherein:

the authentication information comprises a shared key which may be used to create secure communications between the user and the packet data network.

Claim 29 (Previously Presented): A method in accordance with claim 28

wherein:

the authentication information is a subscriber identification module SIM comprising a number n of service units with each service unit comprising a different random access number uniquely identifying each service unit, a signed response SRES and the shared key K_c .

Claim 30 (Currently Amended): A method in accordance with claim 26

wherein:

the user request includes a quantification of connectivity which the user requests to the packet data network; and

the quantification comprises at least one service unit with each service unit being encoded with a random number.

Claim 31 (Previously Presented): A method in accordance with claim 30

wherein:

each service unit is encoded with a different random number.

Claim 32 (Currently Amended): A method in accordance with claim 27

wherein:

the user request includes a quantification of connectivity which the user requests to the packet data network; and

the quantification comprises at least one service unit with each service unit being encoded with a random number.

Claim 33 (Previously Presented): A method in accordance with claim 32
wherein:

each service unit is encoded with a different random number.

Claim 34 (Previously Presented): A method in accordance with claim 26
wherein:

after the user is informed that authentication to obtain connection to the packet data network has been obtained, the user transmits to the second network at least one request for consumption of at least one service unit comprising a random number RAND and a signed response SRES;

the second network compares the random number RAND and signed response SRES of each request for consumption of at least one service unit received from the user with stored random numbers RAND and signed responses SRES to determine if a match exists; and

if a match exists, the second network permits data packets to pass through the second network between the user and the packet network.

Claim 35 (Previously Presented): A method in accordance with claim 27

wherein:

after the user is informed that authentication to obtain connection to the packet data network has been obtained, the user transmits to the second network at least one request for consumption of at least one service unit comprising a random number RAND and a signed response SRES;

the second network compares the random number RAND and signed response SRES of each request for consumption of at least one service unit received from the user with stored random numbers RAND and signed responses SRES to determine if a match exists; and

if a match exists, the second network permits data packets to pass through the second network between the user and the packet network.